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Re: U.S. Application
Serial No: 09/108,705
CPA Filed: JUNE 16, 2000
Group: 2622
Inventor: Tetsuro MOTOYAMA
For: METHOD AND SYSTEM FOR...

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SIR:

Attached hereto for filing are the following papers:

APPEAL BRIEF W/ APPENDIX A (IN TRIPLICATE)

Our check in the amount of **$ 310.00** is attached covering any required fees. In the event that any variance exists between the amount enclosed and the Patent Office charges for filing the above-noted documents, including any fees required under 37 CFR 1.136 for any necessary Extension of Time to make the filing of the attached documents timely, please charge or credit our Deposit Account No. 15-0030. Further, if these papers are not considered timely filed, then a petition is hereby made under 37 C.F.R. 1.136 for the necessary extension of time. A duplicate copy of this sheet is attached.

Respectfully submitted,

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Docket No. 5244-0082-2X DIV

IN THE UNITED STATES PATENT & TRADEMARK OFFICE

#20
7-10-01

IN RE APPLICATION OF

TETSURO MOTOYAMA : EXAMINER: NGUYEN

SERIAL NO: 09/108,705

CPA FILED: JUNE 16, 2000 : GROUP ART UNIT: 2622

FOR: METHOD AND SYSTEM FOR CONTROLLING AND COMMUNICATING WITH MACHINES USING MULTIPLE COMMUNICATION FORMATS

APPEAL BRIEF

ASSISTANT COMMISSIONER FOR PATENTS
WASHINGTON, D.C. 20231

SIR:

This is an appeal from the decision of the Examiner mailed February 14, 2001 in rejecting Claims 37-48, and 70-77 in the above-identified application. The pending claims are included as Appendix A.

I. REAL PARTY IN INTEREST

The real parties in interest of the above-identified application are the Assignees of this application, Ricoh Company, Ltd. and Ricoh Corporation.

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II. RELATED APPEALS AND APPEARANCES

There are no known related appeals or interferences at the present time.

III. STATUS OF CLAIMS

The rejection of every pending claim including Claims 37-48 and 70-77 is being appealed. There are no claims in this application which have been allowed or indicated as containing allowable subject matter, and each of the claims which was pending at one time in this application which is not being appealed has been cancelled during the course of prosecution of this application.

IV. STATUS OF AMENDMENTS

No amendment has been filed subsequent to the Official Action mailed February 14, 2001. The Supplemental Amendment filed December 20, 2000 was filed before a final rejection and the Official Action mailed February 14, 2001 indicates it is responsive to the amendment filed on December 20, 2000. Thus, there are no unentered amendments in this application.

V. SUMMARY OF THE INVENTION

The present invention is directed towards a method, system, and program product for diagnosing a first device by a second device. As an example, the first device may be a business office device, such as a copier, printer, scanner, or any other type of device including but not limited to a multifunction device, digital camera, stamp device, vending device, or other types of devices.

According to Claim 37, for example, there is a step of transmitting first information from the first device to the second device, and a step of receiving the transmitted information by the second device. The step of receiving a communication is, for example, illustrated at step 302 of Figure 11A and described in the specification at p. 27, lines 6 and 7.

In Claim 37, there is subsequently a step of determining "second information" utilized by the first device wherein the second information is a portion of the first information. The "second information" is preferably any information which is utilized to identify the protocol used in the communication or for a header, although other types of "second information" are possible. No limitations should be read into the "second information," and this term should not be construed more narrowly than what is recited in the claims. With regard to the determining step, steps 306 and 308 of Figure 11A described on pages 27 and 28, for example, search for the existence of a protocol identifier. As an alternative, a step such as step 322 of Figure 11C described at pages 28 and 29, can be performed which determines a communication protocol by the matching of critical fields. It is also possible that other methods of determining the second information and/or a communication protocol may be utilized.

After the second information (e.g., a communication protocol) has been determined, there is a parsing by the second device of a second portion of the transmitted information. This parsing is recited in the originally filed Claim 38 at page 45 of the specification. See also, for example, the original specification at p. 5, lines 13-17, p. 19, lines 15-20, p. 28, lines 3-7, step 352 and p. 31, lines 5 et seq., etc.

Further, a diagnosing step is performed, for example, by the control-diagnostic system 26 illustrated in Figure 1. See e.g., p. 7, line 12 - p. 10, line 20.

VI. ISSUES

The only issue in this appeal is whether each of the pending claims including Claims 37-48 and 70-77 are unpatentable under 35 U.S.C. §103(a) over Allen et al (U.S. Patent No. 5,394,458) in view of Hemmady et al (U.S. Patent No. 4,872,157).

VII. GROUPING OF CLAIMS

The pending claims fall within three separate groups as follows:

Group	Claims
I	37-42 and 70-71
II	43-48 and 72-73
III	74-77

VIII. ARGUMENT

A. Arguments with Respect to Group I

1. Summary of Argument

A basis of the outstanding rejection includes a combination of the data package message format of Hemmady et al into the system of Allen. See the bottom portion of p. 9 of the Office Action mailed February 14, 2001. With regard to the motivation for such a combination, the outstanding Office Action indicates at the bottom of pages 9 and 10 the motivation for combining the data packet message of Hemmady et al into Allen et al is "Allen et al indirectly teaches the use of different protocols in the conversion to different format signals according to the transmission through different communication lines." This motivation is clearly insufficient as Allen et al do not disclose, desire, need, or suggest the use of more than one communication protocol on a single communication line. If only one communication protocol is used on a communication line, there is no need to utilize a protocol identifier as the protocol is known based on what line is used for the transmission.

For the reasons explained in detail below, it will become clear that one of ordinary skill in the art would not modify Allen et al to utilize the data packet message format of Hemmady et al, and therefore the rejection under 35 U.S.C. §103 must be reversed.

2. The Outstanding Rejection

Claims 37-48 and 70-77 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Allen et al in view of Hemmady et al. Allen et al relate to a system for the remote monitoring of a reproduction apparatus. The reproduction apparatus 1 illustrated in Figure 1 of Allen et al is connected to a communication interface 6. There is a diagnostic and administrative device 5 which may be connected to the communication interface 6 through either an RS-232 line, or a modem. See col. 3, lines 24-62. The modem 4 converts RS-232 format signals into analog signals suitable for transmission over ordinary telephone lines. Id. at lines 63-67. The diagnostic and administrative device 5 illustrated in Figure 1 of Allen et al may be a laptop computer, a mini computer, or a main frame computer located in the building at which the reproduction apparatus is located, or it may be at a remote location. Id. at col. 4, lines 8-19.

Allen et al communicate by always having the reproduction apparatus and/or the communication interface 6 generate RS-232 format signals. See e.g., Id. at col. 3, lines 45-68. If a modem is used, the RS-232 format signals are converted into analog signals. Id. at lines 63-65. An important feature to keep in mind is that when the RS-232 interface 3 is used for communication in Allen et al, the protocol utilized consists of RS-232 signals, and when the modem 4 is utilized, the protocol used is an analog communication protocol such as a Hayes compatible signal. Id. at col. 3, lines 45-62. Under no circumstances in Allen et al is there disclosed or suggested a single communication line utilizing multiple communication

protocols. Thus, a key feature of Allen et al is that there is no need or desire to have different communication protocols used on the same communication line.

As admitted by the Examiner in the Office Action mailed February 14, 2001 at the bottom of page 8, "Allen does not directly teach that the parsing of the second portion is for determining a format of the second portion." Of course, Allen et al would never have a need to determine a format of a communication because when the RS-232 communication line is used, a RS-232 format is used, and when a public phone line is used, an analog modem format of communication is used. The format is known in advance, depending on what communication line will be, or is used.

In order to compensate for the deficiency of Allen not teaching or suggesting the feature of parsing to determine a format of the second portion, the Examiner relies at the bottom portion of page 9 of the February 14, 2001 Office Action on Figure 20 of Hemmady et al. Of particular interest in Figure 20 are the protocol identifiers 624 and 638, and the description of these protocols. The Office Action states at the last sentence of page 9 and continuing to the top of page 10 that:

> "It would have been obvious at the time the invention was made to a person having ordinary skill in the art to combine the teaching of the data packet message format in Hemmady to the transmitted information through the communication lines in Allen et al since Allen et al indirectly teaches the uses of different protocols and the conversion to different format signals according to the transmission through different communication lines."

A basis for traversing the outstanding rejection is the above cited motivation for combining the data packet message format of Hemmady et al into Allen et al.

3. Argument for Group I into the system of Allen et al

Hemmady et al relate to a high performance metropolitan area telecommunications packet network. The various systems which communicate on the system of Hemmady et al are labeled End User Systems ("EUSs") 26. These end user systems are diverse and include

devices such as main frame computers, file servers, local area networks including high performance local area networks, token ring networks, and fiber systems using fiber distributed data interfaces. See e.g., Hemmady et al at col. 7, lines 24-31. As shown in Figure 2, within the End User System ("EUS") 26, there is a User Interface Module ("UIM") 13. This UIM converts the protocol utilized by the EUS into the protocol used by the Metropolitan Area Network ("MAN"). See Hemmady et al at col. 7, lines 43-48. The Metropolitan Area Network utilizes a special protocol or its own protocol, and does not use the protocol native to the EUS. Therefore, it is necessary to convert the protocol of the transmitting EUS to the MAN protocol, and subsequently back to the EUS format.

Figure 20 illustrates the message format for transmission between the Uniform Interface Module 13 and the Memory Interface Module ("MINT") 11 illustrated in Figure 4. In order for the Metropolitan Area Network of Hemmady et al to operate, it is necessary to know the format of the End User Header 630 illustrated in Figure 20. The protocol of this header 630 is defined in or determined by the protocol identifier 624 illustrated in Figure 20. See col. 62, lines 20-22. In the EUS header 630, there is a protocol identifier 638 for identifying the contents of the internal EUS protocol. Id. at lines 28-30. Hemmady et al uses such protocol identifiers because of the requirement to transmit varying communications using multiple protocols over a single Metropolitan Area Network.

To summarize the teachings of Hemmady et al, Hemmady et al teaches that when there is a broad variety of communications and ***multiple*** protocols which are to be transmitted over a ***single*** network, protocol identifiers can be used to assist with the communication. As Allen et al only disclose that one particular type of communication protocol can be transmitted over a specific connection (e.g. RS-232 communications over a RS-232 communication line, and analog communication signals generated by a modem over a

telephone line), the protocol identifier is not useful in the system of Allen et al and one of ordinary skill in the art would never modify Allen et al to use the protocol identifier set forth in Hemmady et al because there is absolutely no need for it.

The above arguments clearly show why one of ordinary skill in the art would not apply the teachings of the packet format of Figure 20 of Hemmady et al to the system of Allen et al, and the Examiner's reason for the modification is not persuasive or reasonable. As stated above, the Examiner's motivation of combining the data packet message having the protocol identifier of Hemmady et al into the system of Allen et al is set forth at the bottom of page 9 and the top of page 10 of the Official Action mailed February 14, 2001, and is because:

> since Allen et al indirectly teaches the use of different protocols and the conversion to different format signals according to the transmission through different communication lines.

This statement of motivation is irrelevant. Just because a particular protocol is used for a particular communication medium does not mean that a protocol identifier is necessary or desirable as the protocol utilized is inherent to the communication medium in Allen et al.

Based on the above, there exists no appropriate motivation for combining the packet format including the protocol identifier of Figure 20 of Hemmady et al into the system of Allen et al, and therefore, the rejection of all claims must be withdrawn.

As a separate argument for patentablity Claim 37 recites "parsing...using the second information...." No prior art of record clearly teaches such parsing. The Office Action mailed February 14, 2001 attempts to address this issue in section (3) on page 4. However a careful reading of the explanation of page 3 reveals that the Examiner provides no citation to any portion of any reference which discloses parsing. Moreover, the Examiner provides no analysis of this feature. Just a conclusory statement, "Thus, Allen in view of Hemmady

teaches...the parsing of a second portion..." Such a conclusory statement is not sufficient to maintain a prima facie case of obviousness.

4. Arguments for Group II

The invention of Group II includes Claims 43-48 and 72-73 which are directed towards a system. These claims have a different scope from the claims of Group I because they are system claims and because Group I contains method claims. Because Allen et al and Hemmady et al cannot be combined in the manner set forth in the outstanding Office Action for the reasons explained in detail above, the invention of Group II is patentable over the combination of Allen et al and Hemmady et al.

5. Arguments for Group III

The invention of Group III includes Claims 74-77 which recite a program product and has a different scope than the system of Group II and the method of Group I. Because of this different scope, it is inappropriate to group all claims together. Allen et al cannot be combined with Hemmady et al for the reasons explained above with regard to Group I. Therefore, the rejection of Group III should be withdrawn.

6. Previous Arguments Made During Prosecution

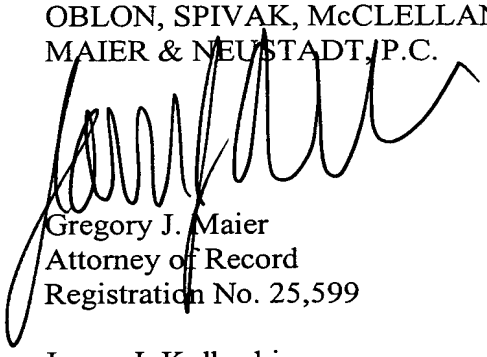
During the prosecution of this application, a number of arguments and explanations were made by a different attorney. The Examiner has not allowed any claims in response to these arguments and explanations, and the arguments and explanations have not played any factor in the allowance of this application. Accordingly, all previous arguments and explanations, except for the arguments in this Appeal Brief, are hereby expressly withdrawn and neither the Examiner, the Board, nor the public should rely on these arguments for purposes of understanding the invention, claim interpretation, or prosecution history estoppel.

IX. SUMMARY

For the foregoing reasons, it is submitted that the rejection of each of the pending claims under 35 U.S.C. §103 as being unpatentable over Allen et al in view of Hemmady et al is erroneous and a reversal of the rejection set forth by the outstanding Office Action is respectfully requested.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.



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APPENDIX A
Pending Claims of SN 09/108,705

37. A method of diagnosing a first device by a second device which has an ability to diagnose different types of devices including different business office devices, comprising the steps of:

transmitting, through a communication channel, first information from the first device to the second device;

receiving, by the second device, the first information which has been transmitted;

determining, by the second device, second information utilized by the first device, wherein the second information is a first portion of the first information;

parsing, by the second device, a second portion of the first information transmitted by the first device using the second information which has been determined to determine a format of the second portion whereby the second portion is parsed, wherein the second portion is different from the first portion; and

diagnosing a condition of the first device by the second device using the second portion which has been parsed.

38. A method according to claim 37, further comprising the step of:

determining, by the second device, a device identification for the first device.

39. A method according to claim 38, further comprising the step of:

selecting an input format of data, used by the parsing step, from a plurality of input formats stored in a data base which defines a plurality of input formats of data.

40. A method according to claim 39, wherein the selecting step comprises:

selecting an input format for a facsimile machine from the data base which contains input formats of data for both facsimile machines and copier machines.

41. A method according to claim 39, wherein the selecting step comprises:

selecting an input format for a copier machine from the data base which contains input formats of data for both facsimile machines and copier machines.

42. A method according to claim 37, further comprising the step of:

controlling the first device by the second device by transmitting control information from the first device to the second device using the second information which has been determined.

43. A system for remotely diagnosing devices, comprising:

a first device which is remotely diagnosed, including:

means for transmitting first information through a communication channel;

a second device for performing a remote diagnosis of the first device, including:

means for receiving the first information which has been transmitted by the first device;

means for determining second information utilized by the first device, wherein the second information is a first portion of the first information;

means for parsing a second portion of the first information transmitted by the first device using the second information which has been determined to determine a format of the second portion whereby the second portion is parsed, wherein the second portion is different from the first portion; and

means for diagnosing a condition of the first device by the second device using the second portion which has been parsed, wherein the second device has an ability to diagnose different types of devices including different business office devices.

44. A system according to claim 43, wherein the second device further comprises:

means for determining a device identification for the first device.

45. A system according to claim 44, wherein the second device further comprises:

means for selecting an input format of data, used by the means for parsing, from a plurality of input formats stored in a data base which defines a plurality of input formats of data.

46. A system according to claim 45, wherein the means for selecting comprises:

means for selecting an input format for a facsimile machine from the data base which contains input formats of data for both facsimile machines and copier machines.

47. A system according to claim 45, wherein the means for selecting comprises:

means for selecting an input format for a copier machine from the data base which contains input formats of data for both facsimile machines and copier machines.

48. A system according to claim 43, wherein the second device further comprises:

means for controlling the first device by the second device by transmitting control information from the first device to the second device using the second information which has been determined.

70. A method according to claim 37, further comprising the step of:

determining, by the second device, a header format of data contained in the device identification for the first device.

71. A method according to claim 70, wherein the step of determining, by the second device, the header format of data further comprises:

determining, by the second device, the header format of data contained in the device identification for the first device by selecting the header format of data from a protocol identifier data base.

72. A system according to claim 43, wherein the second device further comprises:

means for determining a header format of data contained in the device identification for the first device.

73. A method according to claim 72, wherein the means for determining the header format of data further comprises:

means determining the header format of data contained in the device identification for the first device by selecting the header format of data from a protocol identifier data base.

74. A program product for diagnosing a first device by a second device, wherein the second device has an ability to diagnose different types of devices including different business office devices, the program product including a storage medium embodying instructions for causing the second device to perform the steps of:

receiving first information which has been transmitted from the first device through a communication channel;

determining second information utilized by the first device, wherein the second information is a first portion of the first information;

parsing a second portion of the first information transmitted by the first device using the second information which has been determined to determine a format of the second portion whereby the second portion is parsed, wherein the second portion is different from the first portion; and

diagnosing a condition of the first device using the second portion which has been parsed.

75. A program product according to claim 74, wherein the instructions further cause the second device to perform the step of:

determining a device identification for the first device.

76. A program product according to claim 75, wherein the instructions further cause the second device to perform the step of:

selecting an input format of data, used by the parsing step, from a plurality of input formats stored in a data base which defines a plurality of input formats of data.

77. A program product according to claim 76, wherein the instructions further cause the second device to perform the step of:

selecting an input format for one of a facsimile machine and a copier machine from the data base which contains input formats of data for both facsimile machines and copier machines.